

What is claimed is:

1. A head assembly for a RPV, comprising:

a RPV closure head;

a seismic support platform spaced from the closure head;

an array of CRDMs, each CRDM including an electro-magnetic coil stack assembly and having a lower end supported by the RPV and an upper end supported by the seismic support platform;

a lower shroud surrounding the electro-magnetic coil stack assemblies and having an upper end spaced from the seismic support platform in air flow communication with the atmosphere around the CRDMs;

a plurality of internal ducts disposed within the array of CRDMs, each duct extending from a lower end disposed in air flow communication with the lower shroud to an upper end;

an upper plenum disposed above the seismic support platform in air flow communication with the internal ducts;

a missile shield assembly disposed within the upper plenum;

a plurality of fan assemblies disposed on the upper plenum in air flow communication with the upper plenum; and

lift legs connected with the RPV closure head and supporting the seismic support platform, the upper plenum and the missile shield assembly for removal of the head assembly as an integral assembly.

2. The head assembly of Claim 1, wherein the internal ducts have support springs.

3. The head assembly of Claim 2, wherein the internal ducts are supported by the springs against the coil stack assemblies.

4. The head assembly of Claim 1, wherein the internal ducts are seismically supported by the seismic support platform.

5. The head assembly of Claim 4, wherein the internal ducts have internal plates in the section of the ducts disposed in the seismic support platform.

6. The head assembly of Claim 1, wherein the internal ducts are supported by the upper plenum.

5 7. The head assembly of Claim 1, wherein the internal ducts and the upper plenum are in air flow communication through a ring header duct disposed below the seismic support platform in air flow communication with the internal ducts and at least one cross-over duct in air flow communication with the ring header duct and the upper air plenum.

10 8. The head assembly of Claim 7, wherein the internal ducts are supported by the ring header duct.

9. The head assembly of Claim 1, wherein each lift leg comprises a lower leg member detachably connected with an upper leg member, and the lower leg member is connected with the RPV closure head and supports the seismic support platform, and the upper leg member supports the upper plenum and the missile shield assembly;

15 whereby, when the upper leg member is detached from the lower leg member, the upper plenum and the fan assembly disposed on the upper plenum and the missile shield assembly may be removed as a subassembly from above the RPV; and

whereby, when the upper leg member is attached to the lower leg member, the head assembly may be removed as an integral assembly.